

P-0101
KEEP A LOG

CONDITIONS

You have been assigned to keep a log on a mission, and must log the actions of your unit, section or team on the ICS Form 214 for use during debrief after the mission.

OJECTIVES

Correctly maintain a log of actions during an incident.

TRAINING AND EVALUATION

Training Outline

1. When working an incident, staff members are required to maintain a log of all significant actions. This is important for record keeping of the accomplishments and setbacks, determining search effectiveness during debriefing, and as a legal record of CAP actions amongst many other things.
2. The mission log is started once a unit or section is opened and maintained until personnel are called in and at home safely to the incident commander. A separate log should be maintained for each varying unit or section that is assigned to the incident, and subordinate units at varying levels will normally also keep a log. This log is turned in with the debriefing paperwork and becomes part of the official mission record.
3. The following actions are always recorded in the log:

FOR GROUND OPERATIONS

- a. Departure and return times to mission base.
- b. Routes taken to and from the search area.
- c. Times of entering and leaving search areas.
- d. Any time the search line changes direction.
- e. Times/locations of clue detections or witness interviews.
- f. Time/location of find.
- g. Time/Location of communications checks.
- h. Any event or action related to the team's ability to complete the sortie requirements (natural hazards encountered, injuries to team members, etc.).
- i. Encounters or instructions from local authorities.
- j. Encounters with the media.
- k. Mileage/Flight time at key intersections, when leaving pavement, at other key locations, etc.

l. Time of distress beacon or other emergency signal acquisition.

m. Times distress beacon located and silenced. Also, if available, include the name(s) and organization(s) of person(s) involved in silencing the distress beacon, the manufacturer, serial number, dates of manufacture and battery expiration, vehicle information (type, vehicle registry, description), and the name of the owner.

n. Personnel assignments to and from the team/unit.

Note: This log (ICSF 214) may be kept as an attachment to the CAPF 109

FOR AIRCREW OPERATIONS

a. Briefing details

b. Names of crew members

c. Engine start time

d. Take Off time

e. Communications checks

f. Time beginning assigned grid or route

g. Time departing grid or route

h. Significant weather, turbulence, other

i. Time of landing

j. Time of engine shutdown

k. Crew changes if any

Note: this log (ICSF 214) may be kept as an attachment to the CAPF 104

FOR MISSION BASE STAFF OPERATIONS

a. Time/date unit or log started or activated

b. Name of unit, supervisor, and individual keeping the log

c. Notes from initial briefing

d. Time and noted from staff meetings

e. Significant events, actions taken, direction received or provided

4. For each log entry, the log keeper writes down the following on the ICSF 214:

- a. The time.
- b. The event taking place (see list above)
- c. Mileage and/or location as appropriate.
- d. Name of individual annotating the log each time there is a change.

Additional Information

More detailed information on this topic is available in each emergency services reference text.

Evaluation Preparation

Setup: Prepare narrative of 10 events/actions and times. Provide the individual with the list, a pen, and an ICS Form 214.

Brief Student: Tell the student that he is the log keeper for his unit, and that the 10 events listed in the narrative have occurred. Tell him to log the events/actions on the on team log form.

Note: this evaluation can be accomplished during a training exercise by observing the events taking place and checking the log to see that they are properly annotated.

Evaluation

Performance measures

Results

For each of the 10 events/actions, the student:

- | | | |
|----------------------------------|---|---|
| 1. Logs the time and event | P | F |
| 2. Writes legibly and completely | P | F |

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

L-0001
BASIC COMMUNICATIONS PROCEDURES FOR ES OPERATIONS

CONDITIONS

You are a member of the CAP mission staff performing a task in which the use of a radio is necessary.

OBJECTIVES

Properly operate a CAP radio.

TRAINING AND EVALUATION

Training Information Outline

1. From time to time, duties may require the use of a CAP radio. This is not a difficult task, but does require some knowledge of operating procedures and equipment.
2. You should be able to demonstrate the following skills:
 - a. Demonstrate the proper method to contact another station.
 - b. Demonstrate knowledge of call signs.
 - c. Demonstrate knowledge of basic prowords.
 - d. Demonstrate ability to operate basic radio equipment.
 - e. Demonstrate knowledge of prohibited practices.
 - f. Demonstrate knowledge of National communications policies.
 - g. Demonstrate knowledge of local operating practices.
 - h. Demonstrate knowledge of region, wing, and local policies.

Additional Information

Additional information is available in CAPR 100-1 Vol. 1 and the "Radiotelephone Procedures Guide."

Evaluation Preparation

Setup: The student is provided with a basic radio (volume, squelch, channel controls) and asked to communicate with another station. At least one radio will be needed for this exercise. The pro-words "roger," "over," "out," affirmative," should be used. The exchange should go through several transmissions with questions and answers. Prohibitive practices, such as "chit chat," should be used or discussed.

Brief Student: The student is at mission base and has been assigned the task of reporting when the director of the local office of emergency management arrives for his/her tour of the facility.

Evaluation:

<u>Performance measures</u>	<u>Results</u>	
1. Listen before transmitting	P	F
2. Demonstrate calling procedures including call signs	P	F
3. Demonstrate use/understanding of basic prowords	P	F
4. Demonstrate understanding of radio equipment including finding local repeater/simplex	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

L-0002
PERFORM RADIO OPERATING PROCEDURES

CONDITIONS

You are a mission radio operator at a search/DR base.

OBJECTIVE

Properly operate a mission base radio system.

TRAINING AND EVALUATION

Training Information Outline

1. A Mission Radio Operator is required to maintain communications with all mission assets (aircraft, ground teams, flight line and forward bases). This allows for sending new instructions, reporting mission information and as a safety measure for keeping track of people in the field.

2. You should be able to demonstrate the following skills:

- a. Demonstrate the proper method to contact another station.
- b. Demonstrate knowledge of the International Phonetic Alphabet.
- c. Demonstrate knowledge of CAP Prowords.
- d. Demonstrate knowledge of international urgency signals.
- e. Demonstrate the ability to maintain a communications status board.
- f. Demonstrate a familiarity with standard equipment and local communications operations.
- g. Demonstrate the proper use of standard radio equipment.
 - 1) Set volume and squelch levels appropriately
 - 2) Demonstrate proper use of microphone

Additional Information

Additional information on this topic can be found in The Radiotelephone Procedures Guide.

Evaluation Preparation

Setup: Provide the student with a message to reassign an aircraft to another grid, a status board, a radio, paper and pencil/pen.

Brief Student: Ask the student how they would contact an aircraft flying a sortie. Tell the student that he needs to transmit the change of grid assignment to the aircraft. Transmit an urgency signal to the student and ask them to identify the meaning of the signal and what action that they should take.

Evaluation:

<u>Performance measures</u>	<u>Results</u>	
1. Demonstrate setting volume and squelch levels for proper function	P	F
2. Demonstrate proper microphone technique	P	F
3. Demonstrate listening before transmitting	P	F
4. Properly call and acknowledge aircraft	P	F
5. Send change of grid assignment, using proper phonetics and prowords	P	F
6. Correctly interpret urgency signal and take appropriate action	P	F
7. Update mission communications status boards	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

L-0003
EMPLOY APPROPRIATE RADIO FREQUENCIES AND REPEATERS

CONDITIONS

You are the radio operator, and have been told to contact another station. You must choose what frequency to use.

OBJECTIVE

Within 2 minutes, identify the appropriate frequencies and channels used for operations.

TRAINING AND EVALUATION

Training Information Outline

1. CAP Teams use a number of VHF-FM frequencies to communicate with mission base, ground teams, and aircraft.
2. Frequency assignments are usually given by the communications unit leader based on the following.
 - a. Simplex Frequencies (VHF-FM): Short range communications where units are operating on the same transmit and receive frequency
 - b. Duplex Frequencies. Longer range communications are accomplished through the use of a repeater. All repeaters are accessed by transmitting a subaudible tone through the radio. The 100.0 Hz tone will activate any CAP repeater, but is used only in emergencies and to request the proper tone frequency for the repeater in use. Other tones are programmed into the radio as required. The communications unit leader will brief teams on what frequency and tones to use to access local repeaters.
 - c. VHF-AM (Airband) SAR Frequencies: These are dedicated frequencies authorized for training and actual missions that can be accessed by any aircraft.
 - d. National HF Frequencies: These are frequencies coordinated by National Headquarters. Some teams may be deployed with HF radios on these frequencies during disasters to serve as relay points out of affected areas.
 - e. Region HF Frequencies: These are frequencies established for HF operations within a region. Teams may also be deployed and operate on these frequencies to transmit greater distances than traditional VHF-FM assets used by ground teams.
 - f. Other frequencies are used to communicate with police, Coast Guard, and other SAR agencies. Again, the communications unit leader will brief on the use of these frequencies.

Additional Information

Additional information on frequencies used in CAP and repeater locations can be found in CAPR 100-1 Vol. 1, chapters 7, 9, & 10, and The Communications Directory. Wing Communications Operations and Training plans will also contain important information for your area.

Evaluation Preparation

Setup: Prepare a list of the five frequency groups listed above for your area of operation with assignments in each group. Give the list to the trainee. The student may use any item from his field gear, including this book or a “cheat sheet”.

Brief Team Leader: Tell the student to identify each frequency and its use, within 2 minutes total time.

Evaluation:

<u>Performance measures</u>	<u>Results</u>	
The individual identifies:		
1. Identifies the primary simplex frequency and its use.	P	F
2. Identifies the alternate simplex frequency and its use.	P	F
3. Identifies the primary duplex frequency pair and its use.	P	F
4. Identifies the alternate duplex frequency pair and its use.	P	F
5. Identifies the primary HF SSB frequency for the region	P	F
6. Identifies the alternate HF-SSB frequency for the region	P	F
7. Completes all steps within 2 minutes	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

L-0004
MESSAGE HANDLING PROCEDURES

CONDITIONS

You are a mission radio operator at a SAR/DR base.

OBJECTIVE

Demonstrate the proper sending, receiving and distribution of formal and informal message traffic.

TRAINING AND EVALUATION

Training Information Outline

1. A Mission Radio Operator is required to transmit, receive and distribute both formal and informal mission related messages. Messages must be processed and delivered in an accurate and timely manner.
2. You should be able to demonstrate the following skills:
 - a. Demonstrate how to send formal and informal messages
 - b. Explain the significance of the message precedence
 - c. Demonstrate how to fill out incoming message forms
 - d. Demonstrate filling in a mission radio log
 - e. Receive and route a formal message

Additional Training

Additional information on this topic can be found in the Radiotelephone Procedures Guide.

Evaluation Preparation

Setup: Provide the student with a formal mission continuation message and an informal message for a ground team to contact the Ground Branch Director by telephone, message forms, a radio, paper and pencil/pen.

Brief Student: Have the student send you the formal and informal messages. Ask for a fill on the formal message. Send a formal message to the student. Send an informal message to the student.

Evaluation:

<u>Performance measures</u>	<u>Results</u>	
1. Properly send messages, using appropriate phonetics and prowords	P	F
2. Properly handle a request for a fill on the formal message	P	F
3. Properly fill out and distribute a message form	P	F
4. Properly and completely fill out mission radio log	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

L-0005
CHOOSE A GOOD COMMUNICATIONS SITE

CONDITIONS

Given a scenario in which a team is deployed from base to a remote location.

OBJECTIVE

Determine a good location to contact base by radio.

TRAINING AND EVALUATION

Training Information Outline

1. When on a sortie, the ground search and rescue team is required to maintain communications with mission base. In order to contact mission base, the team must find a good geographical location that will provide solid radio communications.
2. The following factors should be considered in choosing a good communications site:
 - a. High ground. The higher you are, the farther your signal can travel because there are fewer objects in the way.
 - b. Line of Sight. You want a clear path through the air between you and the station you are trying to communicate with. Just finding a high spot will not necessarily help if there is higher ground left between you and the receiving station. Artificial structures, especially tall buildings and metal sheds/towers, can block a signal easily.
 - c. Accessibility. If you are choosing a communications site based on a map study, ensure that you can actually get to it. The best communications site in the world cannot help you if you cannot drive/walk to it easily or if it is behind a locked gate.
 - b. Radio Interference. Some artificial objects produce radio interference that can interfere with your radio's ability to receive. Look for and avoid radio interference generators when choosing a communications site. These include:

- 1) High power lines
- 2) Transformers
- 3) Underground cables

Additional Information

Additional information on choosing a good communications site can be found in publications of the American Radio Relay League (ARRL), Newington, CT. Information on ARRL can be found at their web site: <http://www.arrl.org>.

Evaluation Preparation

Setup: None.

Brief Team Leader: Ask the team leader to name at least three factors in choosing a good communications site, and two sources of radio interference.

Evaluation:

<u>Performance measures</u>	<u>Results</u>	
1. Identifies the three of the four communications site factors	P	F
2. Identifies two radio interference sources	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

L-0006
TAKE STEPS TO REGAIN COMMUNICATIONS

CONDITIONS

Given a radio and a situation where you must contact another unit or base by radio but cannot reach them.

OBJECTIVE

Define correct procedures for re-establishing a radio communications link.

TRAINING AND EVALUATION

Training Information Outline

1. Ground Search and Rescue Team communications with base and other teams are primarily based on using VHF-FM radio communications. Due to the frequencies used, these communications are limited to line-of-sight access. There must exist an unobstructed line between the transmitting and receiving station. When teams are deployed to the field, they will frequently operate on the 'wrong' side of the mountain or in low areas where the line-of-sight to base or other stations is blocked.
2. The following actions can be taken to re-establish FM radio communications:
 - a. Check the radio. Ensure battery is good (battery meter or listen for static with squelch off), and that the antenna and hand mike are connected and operational. Try another radio or battery if available.
 - b. Move to higher ground. This places your antenna at a higher location and increases the chances of maintaining line-of-sight to the receiving station.
 - c. Use duplex mode. Repeaters are placed in several locations around the state. If you cannot reach base directly, it might be possible to contact them through a radio repeater.
 - d. Request ground or air relay. If another ground station or aircraft is in a location where it has contact with you and the receiving station, they can relay your message. Only use an aircraft relay if absolutely necessary.
 - e. If transmitting from a vehicle, move the vehicle to another location. There are radio 'dead spots' near power lines and other areas. Simply moving the vehicle a few meters may correct the situation.
 - f. If none of these actions work, find a telephone and use it to contact base.

Additional Information

Additional information on regaining communications can be found in L-0005 (Choose a Good Communications Site) and your radio's trouble shooting guide.

Evaluation Preparation

Setup: None.

Brief Team Leader: Brief the team leader that he is the radio operator on a team and has been told to contact mission base, but cannot reach them. Ask him what steps he would take to regain communications.

Evaluation

<u>Performance measures</u>	<u>Results</u>	
1. Demonstrate troubleshooting the radio	P	F
2. Describes three of the remaining five steps of re-establishing communications with mission base.	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

L-0007
CONDUCT SCHEDULED RADIO CHECKS

CONDITIONS

You are the radio operator for your team in the field. Your team has been told to contact mission base at scheduled times with current situational information.

OBJECTIVE

Conduct scheduled radio checks on time and with proper information.

TRAINING AND EVALUATION

Training Information Outline

1. When on a sortie, the ground search and rescue team is required to maintain communications with mission base in some manner. This allows for receiving new instructions, reporting mission information, and as a safety measure for keeping track of people in the field.

2. Make scheduled radio checks:

- a. At the times briefed by the ground operations director.
- b. When completing certain sortie actions identified in advance by the ground branch director.
- c. Departure and returning to mission base.
- d. Entering and leaving search areas.
- e. Any extended stop, such as a meal break.

3. Before making the radio check:

- a. Stop and determine the team's location and status. Get this done BEFORE the time the check is due.
- b. Contact mission base or radio relay to transmit his check-in.

4. When making a scheduled radio check, transmit:

- a. The time of the radio check
- b. The team's location
- c. The teams status or actions in progress.
- d. Request confirmation and read-back of message from base.

e. For example "FREESTATE TWO FIVE THIS IS FREESTATE TWO ONE SEVEN. SCHEDULED RADIO CHECK FOR FOURTEEN HUNDRED HOURS. TEAM IS LOCATED AT: GRID

RIGHT ONE POINT THREE, UP TWO POINT TWO. CONTINUING SEARCH PATTERN, NOTHING ELSE TO REPORT. PLEASE READ BACK THIS MESSAGE.

Additional Information

Additional information is available in the "Radiotelephone Procedures Guide."

Evaluation Preparation

Setup: On a sheet of paper, write the location of the ground team, what they have been doing since the last radio check, and what they are currently doing. Don't let the team member see this paper - if he asks you questions about the team's status or locations, read him the information off the paper. Provide the team member with a radio, paper and a pencil. Ensure he has a watch.

Brief Team Leader: Tell the team leader that he is now his team's radio operator. Ask the team member when he would make check-ins with mission base. After he has answered, tell him that he must make scheduled radio check at a given time (pick a time five minutes from the briefing). Tell him that you will answer any questions you have about his ground team's status.

Evaluation:

<u>Performance measures</u>	<u>Results</u>	
1. Identifies the four times a team makes radio checks	P	F
2. Determines the team's location and status before checking in.	P	F
3. Transmits radio check-in correctly, including time, location, and team actions.	P	F
4. Requests/receives confirmation	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

L-0008
SEND A POSITION REPORT

CONDITIONS

Given a known coordinate position, a map, and a radio in the field.

OBJECTIVE

Transmit your known position to a distant station correctly.

TRAINING AND EVALUATION

Training Information Outline

1. Determine your own position through terrain association, GPS, polar plot, or resection. Define this position in latitude/longitude, overlay grid coordinates, or polar plot.
2. Contact distant radio station using proper radiotelephone procedures.
3. Transmit location clearly using latitude/longitude, overlay grid coordinates, or polar plot
4. Have distant radio station read back location for confirmation.
5. End transmission according to radiotelephone procedures.

Additional Information

Additional information may be found in the "Radiotelephone Procedures Guide."

Evaluation Preparation

Setup: Provide the team member a radio set to the correct frequency, a map marked with his known location, a pencil and paper. Place another radio and operator at some distance away.

Brief Team Leader: Inform the team leader that he is located at the marked point on the map. Give him his callsign and the callsign of the remote station, and then tell him to send a position report to the remote station.

Evaluation

<u>Performance measures</u>	<u>Results</u>	
1. Contacts the other station appropriately	P	F
2. Transmits his location correctly	P	F
3. Requests read back for confirmation	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

L-0009
REPORT A CLUE OR FIND

CONDITIONS

The team you are supporting has just found a clue that might be related to the search target.

OBJECTIVE

Correctly transmit a report to mission base containing all required information.

TRAINING AND EVALUATION

Training Information Outline

1. When a clue is found, mission base needs to know immediately in order to adjust the search accordingly. You should report the clue quickly and accurately, and suggest to mission base if any personnel (such as the police) should be called out to look at the clue. Also remember that eavesdroppers might be listening in. Be careful how you phrase things to avoid causing undue excitement or panic.

2. To report a clue or find:

- a. Determine the location of the clue using one of the approved methods (grid, polar plot or lat/long - the CAP grid system is not precise enough for clue reporting)
- b. Determine several conditions of the clue, survivor or victim, and resource needed.
- c. Make sure you have searched the immediate area for other clues.
- d. Prepare the Report using the format below.
- e. Establish good communications with mission base or with a relay station.
- f. Send the Report in the following format:

NOTE: "TX"=You "RX"=Mission Base

TX: "I have a clue report for the mission coordinator or ground operations officer. Advise when you are ready to copy, OVER."

RX: "Roger, proceed, OVER."

TX: "Location: (Sends location in grid coordinates, polar plot, etc.), OVER."

RX: "Roger, continue, OVER."

TX: "Found (Sends clue description.)"

RX: "Roger, continue, OVER."

TX: "(Send status of clue - marked, bagged, etc.)"

RX: "Roger, what resources do you need, if any? OVER"

TX: "(Tell the mission radio operator what, if anything)"

(For resources needed:

- 1: No resources needed. Rescue can be accomplished with forces on hand.
- 2: Advanced Life Support required.
- 3: Fire Suppression Personnel required.
- 4: Medical Examiner or Coroner required
- 5: Law Enforcement Personnel required.
- 6: Hazardous Materials Team required.
- 7: Additional Ground Teams required, OVER

RX: "Roger, I'll pass that on immediately, OVER"

TX: "Standing by for further instructions."

g. Avoid conjecture. Don't make guesses over the radio as to what the clue means. If mission base wants your analysis, they will request it.

h. Avoid inflammatory or unclear descriptions that could unduly excite eavesdroppers. For example do not say, "We've found a pile of bloody clothing." Instead, say, "Found one pair of jeans, size 12 and one white T-shirt. Both are dirty and have possible bloodstains."

Evaluation Preparation

Setup: Prepare a description of a clue/find and write it down. Ensure you include the location of the clue using one of the objective techniques, the description and current status of the clue, and additional resources the team needs. Provide the individual with a copy of the clue report format above.

Brief: Advise him that his team has just found a clue. Tell him you will play the role of mission base and the team leader. Give him the written clue and tell him to read it and ask any questions. When he is ready, advise him to prepare a clue report and send it to you using the format of this task, pretending he is using a radio, within 5 minutes. He can refer to the task guide.

Evaluation

<u>Performance measures</u>	<u>Results</u>	
1. Correctly contacts mission base and tells them he has a clue report, and that they should prepare to copy.	P	F
2. Correctly transmits the location of the target using any of the authorized methods (grid, lat/long, etc.)	P	F
3. Correctly transmits a description of the clue.	P	F
4. Correctly transmits the current status of the clue.	P	F
5. Correctly sends the item numbers for all resources needed.	P	F
6. Transmits that he is standing by for further instructions.	P	F
7. Has mission base read back the message. Makes corrections as needed.	P	F
8. Uses the correct format and verbiage.	P	F
9. Does not use imprecise or unnecessarily graphic terms.	P	F
10. Avoids conjecture.	P	F
11. Completes all steps within 5 minutes.	P	F
Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.		

L-0010
COMMUNICATIONS SAFETY PROCEDURES

CONDITIONS

You are a mission radio operator at a search/DR base.

OBJECTIVES

Explain the safety exposures and mitigation factors involved in operating a mission radio system.

TRAINING AND EVALUATION

Training Information Outline

1. A Mission Radio Operator is required to maintain a safe environment as part of the operator tasks.
2. You should be able to demonstrate the following skills:
 - a) List at least 5 safety rules for lightning protection
 - 1) If you can hear thunder from lightning, you are close enough be hit by it. Seek safe shelter.
 - 2) Properly ground all equipment when installed.
 - 3) Disconnect antennas from radios when lightning is observed in the area.
 - 4) Disconnect radios/power supplies from ac outlets when lightning is observed in the area.
 - 5) If you are in a vehicle, do not remain in a high location that would make you a likely target for lightning (such as a hilltop or large open field).
 - 6) If you are on foot, seek shelter. Report to mission base, or any other unit, that you are leaving the air due to lightning. Move to a sturdy building or car. Do not take shelter in small sheds, under isolated trees, or in a convertible automobile.
 - 7) If on foot and no suitable shelter is available, find a low spot away from trees, fences and poles. Make sure the place you pick is not subject to flooding. If you are in the woods, take shelter under shorter trees.
 - b) Proper routing and securing of cables and wires
 - c) Locating antenna systems to minimize RF exposure and EMI
 - d) Explain a proper grounding system

Additional Information

Additional information on radio safety can be found in Chapter 7 of CAPR 100-1 Vol. 1. Additional lightning safety tips can be found at the National Lightning Safety Institute's home page at:

<http://www.electricnet.com/orgs/nlsi.htm>

Evaluation Preparation

Setup: None

Brief Student: Have the student recite the 5 safety rules for lightning protection. Have the student explain the proper routing and securing of wires and cables, how to properly locate an antenna system and ground the equipment.

Evaluation:

<u>Performance measures</u>	<u>Results</u>	
1. List at least 5 safety rules for lightning protection	P	F
2. Explain the proper routing and secure of wires and cables	P	F
3. Explain how to properly locate antenna systems to maximize safety and minimize RF exposure and EMI	P	F
4. Explain how to properly ground communications equipment	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

L-0011
RUNNING AN EMERGENCY COMMUNICATIONS NETWORK

CONDITIONS

You are the radio operator at a mission base assigned as the *Net Control Station* (NCS) for the emergency communications network supporting the mission.

OBJECTIVES

1. Maintain network discipline to include proper procedures and operations.
2. Control and direct the flow of formal and informal traffic in the net.

TRAINING AND EVALUATION

Training Outline

1. Network discipline and the management of mission traffic is the responsibility of the NCS. In general, emergency nets are run as *Directed Nets*. This is because most emergency operations require more than a 3 or 4 stations on the air at the same time. While smaller missions may be run as a *Free Net*, the NCS must be trained and qualified to run a directed net.

2. A qualified NCS must be able to demonstrate the following skills:

- a. Open and close the net.
- b. Conducting a roll call.
- c. Traffic management.
- d. Maintaining a list of stations currently on the air.

Additional Information

More detailed information on this topic is available in CAPR 100-1 Volume 1, Radiotelephone Procedures Guide, and the wing Emergency Communications Plan.

Evaluation Preparation

Setup: Supply the student with either a HF or VHF radio. Real or simulated stations will be needed to act as net participants. Some stations should have message traffic to pass to another station on the net. Some stations should be other mission bases, ground units, and aircraft.

Brief Student: The student will demonstrate proficiency in Net Control Station operations as would be expected in a real world mission. The net may be simulated or real. The student will be given the wing Emergency Communications Plan as a reference. The student should be prepared to decide whom or which station should get a particular piece of message traffic.

Evaluation

Performance measures

Results

- | | | |
|--|---|---|
| 1. Demonstrate the net opening procedures as set by wing plans. | P | F |
| 2. Call the roll of stations on the net. | P | F |
| 3. Demonstrate routing traffic to the proper station while maintaining net discipline. | P | F |

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

L-0012
HANDLE AN OVERDUE RADIO CHECK-IN

CONDITIONS

You are working as a Communications Unit Leader at a mission base and an aircraft has missed its regular radio check-in. Regular, scheduled, radio check-ins allow the mission base to track the progress of sorties and alert the mission base to any possible problems involving resources.

OBJECTIVES

1. Determine that a resource has missed a normal radio check-in.
2. A checklist should be available describing the communications and notification procedures for ground or air units that have missed radio check-ins.

TRAINING AND EVALUATION

Training Outline

1. Following the wing Emergency Communications Plan and the mission communications plan, the Communications Unit Leader (CUL) should be able to follow an established checklist or procedure to determine if the missing resource is still on the air.
2. The student should be able to demonstrate the following tasks:
 - a. Determine that a resource has missed a radio check-in.
 - b. Use established procedures and plans to attempt to re-establish communications with the missing resource.
 - c. Be familiar with and follow the notification procedures established in the established plans and procedures.

Additional Information

More detailed information on this topic should be available in wing Communications Plans and Emergency Services Procedures.

Evaluation Preparation

Setup: The student is provided with the wing's checklists and established procedures for the handling of overdue radio check-ins. The student will need a radio logs and other necessary paperwork.

Brief Student: During the normal operations of a mission or exercise, the Comm Unit Leader must insure that aircraft and vehicles are making required check-ins. If an asset is overdue on a check-in, the wing has established policies and checklists that must be followed. In this evaluation, an aircraft will miss a check-in. You must determine which aircraft it is and follow the provided guidance as required.

Evaluation

<u>Performance measures</u>	<u>Results</u>	
1. Determine that a resource has missed a radio check-in	P	F
2. Use established plans and procedures to determine if the resource is still on the air.	P	F
3. Give some examples of ways to assist in determining if the resource is still on the air.	P	F
4. Use established plans and procedures to determine who should be notified of the missing resource.	P	F
Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.		

L-0013
PREPARE AN EMERGENCY COMMUNICATIONS PLAN

CONDITIONS

The Incident Commander appoints you as the Communications Unit Leader for an incident. You must prepare a plan to fill the communications requirements of this mission. This plan must cover all current and contingency communications needs including procedures for loss of communications.

OBJECTIVES

1. The Communications Unit Leader is responsible for developing an Emergency Communications Plan for a given mission or mission base.
2. Emergency planning is based on the wing Emergency Communications Plan and should also cover the basic communications and loss of communications scenarios.
3. Be familiar and capable of using ICS Form 216 and 217.

TRAINING AND EVALUATION

Training Outline

1. Using established wing Emergency Communications Plans, the Communications Unit Leader should be able to develop a specific plan for a given mission or mission base. The plan covers all areas of communications and loss of communications. Emergency Services procedures and checklists should also be used as a resource for planning.
2. The student should be able to demonstrate the following tasks:
 - a. Selection of proper frequencies for use by air, ground, and fixed assets.
 - b. Develop a contingency plan for loss of communications at the mission base, or any resource.
 - c. Develop a contact list for the mission base and field resources to use as necessary, including local police/sheriff's departments, fire, medical, etc.

Additional Information

More detailed information on this topic is available in the wing Emergency Communications Plan and the wing Emergency Services procedures.

Evaluation Preparation

Setup: The student will need current copies of the wing Emergency Communications Plan and Emergency Services procedures. Along with these, a copy of the local telephone directory, emergency contact listings, and/or government telephone directory. Wing communications resource listings should also be available.

Brief Student: After the Incident Commander assigns you as the Communications Unit Leader, you must first develop an Emergency Communications Plan to cover all aspects of the mission. This plan will cover how the

mission base will conduct communications, air units, ground units, and other fixed stations. It will also cover the need for contingencies in the event of loss of communications.

Evaluation

<u>Performance measures</u>	<u>Results</u>	
1. Are frequencies chosen and designated for the different communications needs of the mission (i.e. aircraft, ground teams, base to base, etc.)	P	F
2. Are procedures included to cover loss of communications at mission base, loss of com by resources, missing radio check-ins, loss of power, etc.	P	F
3. Develop a list of contact phone numbers for other agencies, as well as alternate contact information for CAP mission base(s).	P	F
4. Fill out ICS Form 216	P	F
5. Fill out ICS Form 217	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

L-0014
SETUP COMMUNICATIONS EQUIPMENT AT MISSION BASE

CONDITIONS

You are a Communications Unit Leader for a mission. Upon arrival at the mission base, you have to set up the communications system. This includes the safe installation of radios, antennas, etc.

OBJECTIVES

1. The Communications Unit Leader is responsible for the safe and efficient setup of communications equipment at the mission base.
2. Equipment should be setup, adequately grounded, and operational as soon as possible to provide support to the mission.

TRAINING AND EVALUATION

Training Outline

1. Locate a site for location of radio equipment in accordance with the communications plan for the mission. Install radios, antennas, and power distribution with safety in mind. Once installed, all equipment must be tested to assure proper working condition.
2. The student should be able to demonstrate the following:
 - a. Choose a communications area that is conducive to good operations. This area may be one or more areas at the same base. The mission Emergency Communications Plan should cover this.
 - b. Assemble and install the equipment making sure to route cables and power cords in accordance with good operating practices.
 - c. Assure all equipment is functioning properly.
 - d. Assure adequate standby power is available to maintain operations in the event of power failure.
 - e. Assure all equipment is adequately grounded.

Additional Information

More detailed information on this topic is available in various publications including the ARRL Handbook, ARRL Antenna Book, etc.

Evaluation Preparation

Setup: The student must be supplied with the normal equipment used at any exercise or mission base and a location that will simulate a mission base. Using an actual exercise would be an ideal situation for this evaluation.

Brief Student: Acting as the Communications Unit Leader and working with the IC and other mission staff, choose the optimum location for mission communications at the base and install all necessary equipment.

Evaluation

<u>Performance measures</u>	<u>Results</u>	
1. Choose a communications area.	P	F
2. Assemble and install antenna(s)	P	F
3. Run cables from antenna(s) to equipment maintaining a safe operating environment.	P	F
4. Assure all equipment is functioning properly.	P	F
5. Assure adequate standby power is available and provide checklist for the smooth transition from commercial to standby power.	P	F
6. Assure equipment is adequately grounded.	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

L-0015
COMMUNICATIONS PLANNING

CONDITIONS

You are a Communications Unit Leader serving on the staff of a major incident. Prepare the communications inputs to the overall Incident Action Plan.

OBJECTIVES

Properly complete an ICS Form 205 and be prepared to provide additional information to the planning staff relevant to the communications operation to be incorporated into an Incident Action Plan.

TRAINING AND EVALUATION

Training Outline

1. Communications are a critical requirement on any incident. If the incident staff can not adequately communicate with each other then operations may not be able to conducted, or if they are at greater risk than normal.

2. To be sure that all personnel's communications requirements are met, the communications staff in coordination with rest of the staff prepares inputs to the Incident Action Plan (IAP).

a. The Communications Unit Leader, utilizing the resources available to him or her, will prepare an ICS Form 205 for incorporation into the IAP. The resources projected for use in the next operational period are presented in an easily understood format on this form. On larger incidents it may be necessary to use more than one ICS Form 205 to adequately report the expected resource utilization of the incident. Be sure to include the requirements for other agencies supporting you as applicable.

b. In addition to the hardware resources required for the incident, personnel requirements to adequately support the needs of the end users must be established. This will vary from one incident to another, but the communications unit leader needs to consider many options:

- 1) How many locations or groups of separated personnel will need to be supported?
- 2) Will operations be continuous or will there be scheduled down periods for all crews?
- 3) Are their adequately trained personnel available to meet the expected needs of the incident staff? If not, what alternatives do you have?
- 4) Are adequate facilities available to support the incident staff's requirements? If not, what options do you have?

c. Communications requirements for staff are much more than just radio communications. Consider all of the feasible alternatives available to you to meet the needs of the staff. Several options to consider are listed below:

- 1) Telephones including fax and voice mail
- 2) Pagers
- 3) Internet/Intranet including world wide web and e-mail options
- 4) Packet and HF-E-mail
- 5) Video transmissions

3. In developing the communications plan consideration needs to be made for emergencies and equipment breakdowns or failures.

Additional Information

More detailed information on this topic is available in ICS Module 11 – Incident and Planning.

Evaluation Preparation

Setup: Provide the student to be evaluated with a briefing from the Logistics Section Chief that includes local information allowing the student to be evaluated to develop

Brief Student: Text.

Evaluation

<u>Performance measures</u>	<u>Results</u>	
1. Develop the communications portion of the incident action plan for the mission (with coordination from the section chiefs and branch directors)	P	F
2. Coordinate with other participating agencies to determine additional communications requirements.	P	F
3. Determine personnel and equipment requirements for communications (using briefing from the Logistics Section Chief)	P	F
4. Publish frequencies and modes of communications to be used.	P	F
5. Establish telephone communications at the mission base.	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

L-0016
MANAGE RADIO OPERATIONS FOR A GROUND NET

CONDITIONS

You are working at an incident and are given several mobile communications teams to communicate with field units.

OBJECTIVES

1. Determine your communication needs.
2. Position communications resources where they will be most effective.

TRAINING AND EVALUATION

Training Outline

1. Using ground resources over a large area requires the ability to communicate with those resources. This is often accomplished through the use of an aircraft serving as a relay and with cellular phones. However, there are times when these methods will not be available. Under this circumstance, you may have to dispatch communications teams to create a ground relay network.
2. First, you must determine what you need. Analyze your requirements so the Planning Section can work to get you what you need. Never settle for what you currently have available; more resources are usually available if you ask. The primary types of ground communications available to you are VHF radio, HF radio, and telephone (both landline and cellular). Look at the terrain you need to cover and determine your needs.
 - a. If you have a very large area, stations that have VHF and HF can talk to both the units in the field and back to the command post. The stations could also talk to other stations that are out of VHF range.
 - b. Multiple VHF stations could be used to serve as a relay points back from the area of operations to the command post.
 - c. A station that has access to cellular or landline telephone service could be set up that receives radio communications and relays through the telephone system.
3. After determining your needs, look at what resources you currently have available. Then determine what you still need and send that request to the Resources Unit in the Planning Section. The Resources Unit will report back to you what they can get. Take the resources you have and what you will be receiving and determine the best way to position those units to establish the communications network you need.
4. Now that you have decided how you want your communications network set up, dispatch your communications teams. While these teams are in the field, it is important to manage them as you would any of your ground/UDF teams. Make sure they check in regularly and be sure they are provided for and relieved as needed.

Additional Information

More detailed information on this topic is available in the Mission Staff Reference Manual.

Evaluation Preparation

Setup: This examination can be accomplished in a classroom or on a training mission.

Brief Student: To set up a communications net to maintain contact with the ground units in the field.

Evaluation

<u>Performance measures</u>	<u>Results</u>
1. Did the trainee develop a good plan for the needed communications network?	P F
2. Did the trainee track the resources under their control?	P F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

SPECIALTY QUALIFICATION TRAINING RECORD (SQTR)
Communications Unit Leader

NAME (Last, First, MI)

CAPID

DATE ISSUED

Prerequisites

Item

Date Completed

Qualified Mission Radio Operator

Complete Advanced Communications User Training

The above listed member has completed the required prerequisite training for the communications unit leader specialty.

UNIT/WING/REGION COMMANDER OR
AUTHORIZED DESIGNEE'S SIGNATURE

DATE

Familiarization and Preparatory Training

Task

Evaluator's CAPID and
Date Completed

Complete NIIMS G193 or equivalent

The above listed member has completed the required familiarization and preparatory training requirements for the communications unit leader specialty qualification and is authorized to serve in that specialty while supervised on training or actual missions.

UNIT/WING/REGION COMMANDER OR
AUTHORIZED DESIGNEE'S SIGNATURE

DATE

Advanced TrainingEvaluator's CAPID and
Date Completed

Task	
Complete Task L-0015 Demonstrate communications planning	
Complete Task L-0014 Demonstrate the ability to setup communications equipment at mission base	
Complete Task L-0013 Demonstrate the ability to prepare an emergency communications plan	
Complete Task L-0012 Demonstrate the ability to handle an overdue radio check-in	
Complete Task L-0010 Demonstrate communication safety procedures	
Complete Task L-0011 Demonstrate the ability to run an emergency communications network	
Complete Task L-0016 Demonstrate ability to manage radio operations for a ground net	
Complete Task L-0001 Basic Communications Procedures for ES Operations	
Complete Task P-0101 Demonstrate the ability to keep a log	
Complete the appropriate portion of CAPT 117, <i>Emergency Services Continuing Education examinations</i>	

Exercise Participation

The above listed member satisfactorily participated as a communications unit leader trainee under my direct supervision on mission number _____.

QUALIFIED SUPERVISOR'S SIGNATURE DATE

The above listed member satisfactorily participated as a communications unit leader trainee under my direct supervision on mission number _____.

QUALIFIED SUPERVISOR'S SIGNATURE DATE

Unit Certification and Recommendation

The above listed member has completed the requirements for the communications unit leader specialty qualification and is authorized to serve in that specialty on training or actual missions.

UNIT/WING/REGION COMMANDER OR
AUTHORIZED DESIGNEE'S SIGNATURE DATE

SPECIALTY QUALIFICATION TRAINING RECORD (SQTR)**Mission Radio Operator**

NAME (Last, First, MI)

CAPID

DATE ISSUED

Prerequisites

Item

Date Completed

Qualified GES

Complete Basic Communications User Training

The above listed member has completed the required prerequisite training for the mission radio operator specialty and is authorized to serve in that specialty while supervised on training or actual missions.

UNIT/WING/REGION COMMANDER OR
AUTHORIZED DESIGNEE'S SIGNATURE

DATE

Familiarization and Preparatory Training

No Additional Training Is Required

Advanced Training

Task

Evaluator's CAPID and
Date Completed

Complete Task L-0001 Basic Communications Procedures for ES Operations

Complete Task L-0002 Perform Radio Operating Procedures

Complete Task L-0003 Employ appropriate radio frequencies and repeaters

Complete Task L-0004 Message Handling Procedures

Complete Task L-0005 Choose a good communications site

Complete Task L-0006 Take steps to regain communications

Complete Task L-0007 Conduct scheduled checks

Complete Task L-0008 Send a position report

Complete Task L-0009 Report a clue or Find

Complete Task L-0010 Communications Safety Procedures

Complete Task L-0101 Demonstrate the ability to keep a log

Complete the appropriate portion of CAPT 117, *Emergency Services Continuing Education examinations***Exercise Participation**

The above listed member satisfactorily participated as a mission radio operator trainee under my direct supervision on mission number _____.

QUALIFIED SUPERVISOR'S SIGNATURE

DATE

The above listed member satisfactorily participated as a mission radio operator trainee under my direct supervision on mission number _____.

QUALIFIED SUPERVISOR'S SIGNATURE

DATE

Unit Certification and Recommendation

The above listed member has completed the requirements for the mission radio operator specialty qualification and is authorized to serve in that specialty on training or actual missions.

UNIT/WING/REGION COMMANDER OR
AUTHORIZED DESIGNEE'S SIGNATURE

DATE